

# SR2020 THRU SR20200



## 20.0 AMP SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed:260° C/10 seconds., 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

### MECHANICAL DATA

- Case: JEDEC TO-220AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any
- Weight: 1.81 gram
- \* Lead Free Finish/RoHS Compliant

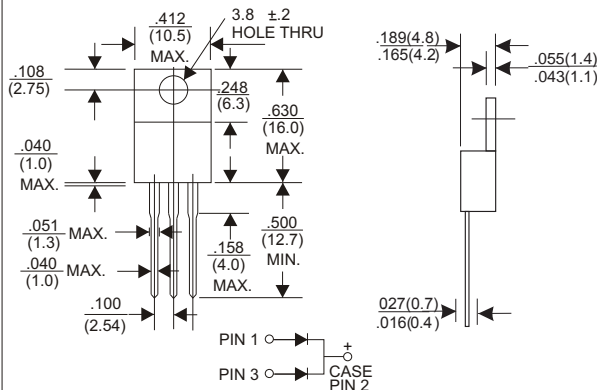
### VOLTAGE RANGE

20 to200 Volts

### CURRENT

20.0 Ampere

### TO-220AB



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load, derate by 20%.)

	Symbols	SR 2020	SR 2030	SR 2040	SR 2050	SR 2060	SR 2080	SR 20100	SR 20150	SR 20200	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	Volts	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts	
Maximum average forward rectified current See Fig. 1	$I_{(AV)}$	20									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200									Amps	
Maximum instantaneous forward voltage at 10.0 A	$V_F$	0.65			0.75		0.85		0.90		0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$I_R$	0.5										mA
		30					50					
Typical thermal resistance (Note 2)	$R_{\theta JC}$	5.0									°C/W	
Operating junction temperature range	$T_J$	-65 to+150									°C	
Storage temperature range	$T_{STG}$	-65 to+150									°C	

Notes: 1.Pulse test: 300  $\mu$ s pulse width,1% duty cycle

2.Thermal resistance from junction to case

# RATING AND CHARACTERISTIC CURVES (SR2020 THRU SR20200)

FIG.1-FORWARD CURRENT DERATING CURVE

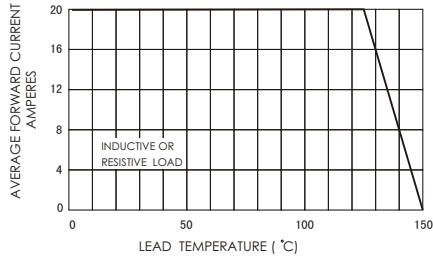


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

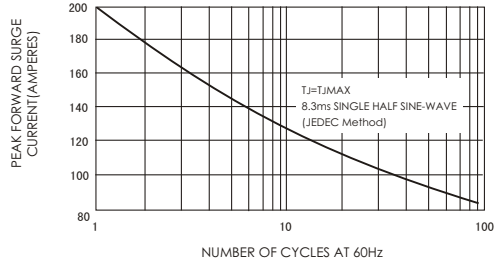


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

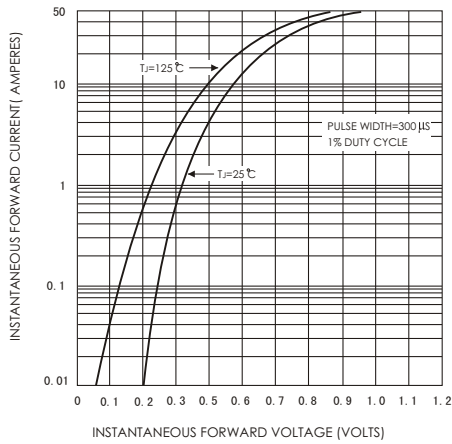


FIG.4-TYPICAL REVERSE CHARACTERISTICS

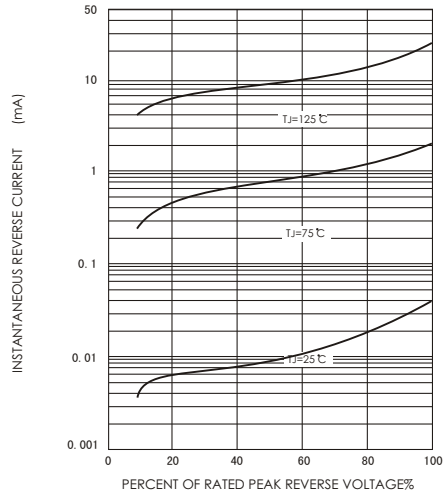


FIG.5-TYPICAL JUNCTION CAPACITANCE

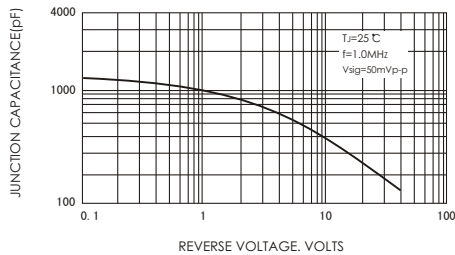


FIG.6-TYPICAL TRANSIENT PEAK THERMAL IMPEDANCE

